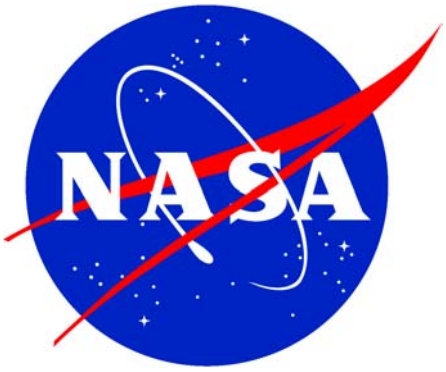
OMB Approval #2700-0087



National Aeronautics and Space Administration
Office of Equal Opportunity Programs
Minority University Research and Education Division

FY 2002 NASA RESEARCH ANNOUNCEMENT

(NRA 02-OEOP-01)

NASA Group 3 HBCU University Research Centers (URC)

Release Date:	February 8, 2002
Notice of Intent Due:	March 15, 2002
Proposals Due:	May 21, 2002
Selection Announcement:	September 2002

Code EU, NASA Headquarters
Washington DC 20546-0001

SUMMARY AND SUPPLEMENTAL INFORMATION

NRA 02-OEOP-01 **GROUP 3 UNIVERSITY RESEARCH CENTERS (URC)**

Inquiries

General questions about this NASA Research Announcement (NRA) must be submitted via e-mail to muredsupport@mail.nasaprs.com or to the NASA Minority University Research and Education Division staff by contacting the individuals below:

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Important Program Dates

Release Date:	**February 8, 2002**
Notice of Intent Due:	**March 15, 2002**
Proposals Due:	**May 21, 2002**
Selection Announcement:	**September 2002**

Solicitation Availability: http://research.hq.nasa.gov
Click on Office of Equal Opportunity Programs (Code E)

NOTE: Minority institutions, not qualified for this funding opportunity as a HBCU, may qualify for funding under NRA 02-OEOP-06 as an OMU. See the URL listed above.

Questions and Answers

We will accept questions via email at muredsupport@mail.nasaprs.com. Additionally, Frequently Asked Questions (FAQ) will be posted online via our website at http://mured.nasaprs.com. For technical and scientific questions about programs in this NRA, see Appendix I for points of contact.

Selection Official

The selection official for this NRA is the Associate Administrator for the Office of Equal Opportunity Programs (OEOP) at NASA Headquarters.

Contracting Officer

The contracting point of contact will be located at the appropriate NASA Center/Jet Propulsion Laboratory (JPL) based on the proposals selected and will be specified in the selection notification letters.

Funds Availability

Funds are not currently available past the first year commitment for awards under this NRA. The Government's obligation to make awards beyond the first year is contingent upon the availability of appropriated funds from which payments can be made and the receipt of annual progress reports that NASA determines are acceptable to continue the award.

Number of Awards

Approximately seven awards will be made based on merit reviews.

Safety

Safety is the freedom from those conditions that can cause death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment. NASA's safety priority is to protect: (1) the public, (2) astronauts and pilots, (3) the NASA workforce (including employees working under NASA instruments), and (4) high-value equipment and property.

Proposal Submission

The original and 10 copies of the proposal package must be received at NASA Peer Review Services no later than 4:30 p.m. Eastern Standard Time, **May 21, 2002**. All proposals, including those sent through the U.S. Postal Service by first class, registered or certified mail and proposals submitted via commercial delivery or courier service, should be addressed to:

NASA Peer Review Services
Attention: URC (NRA 02-OEOP-01)
500 E Street, SW, Suite 200
Washington, DC 20024-2760

This NRA is sponsored by the NASA Office of Equal Opportunity Programs, Minority University Research and Education Division (MURED) and solicits proposals for the GROUP 3 Historically Black Colleges and Universities (HBCU) University Research Centers (URC) program.

These guidelines invite proposals for advancing the research capacity and infrastructure at HBCU's in NASA-related areas. These proposals will be subjected to a rigorous peer review, which will form the basis for selections. The intent of this NASA Research Announcement (NRA) is to continue NASA's commitment to achieve a broad-based, competitive aerospace research capability among the nation's Historically Black Colleges and Universities (HBCU) that will: 1) foster new aerospace science and technology concepts; 2) expand the nation's base for aerospace research and development; 3) develop mechanisms for increased participation by faculty and students of HBCU's in the research programs of NASA's Science and Technology Enterprises; and 4) increase the number of underrepresented minorities at HBCU's who obtain advanced degrees in NASA-related fields.

This NRA will lead to the establishment of significant multi-disciplinary scientific, engineering, and/or commercial research centers at the host universities that contribute substantially to the programs of one or more of the five NASA Strategic Enterprises. The NASA Enterprises (Space Science; Earth Science; Biological and Physical Research; Human Exploration and Development of Space; and Aerospace Technology) are described in the NASA Strategic Plan and in the Technical Description section of this solicitation. The successful proposers will move increasingly towards gaining support from sources outside the URC program by aggressively pursuing funding opportunities offered by the NASA Enterprises, industry, and other funding agencies. They will improve the rates at which U.S. citizens who have historically been underrepresented in NASA-related fields are awarded advanced degrees in such fields at their own university, and/or the rates at which their undergraduate degree recipients go on to earn advanced degrees in such fields at other institutions.

Proposals that demonstrate effective partnerships and/or cooperative arrangements among academia, government agencies, and industry are strongly encouraged. Proposals from academic institutions receiving more than $1 million from NASA MURED in any year over the past five years or who have received $4 million in cumulative awards from NASA MURED over the past five years will be evaluated against additional criteria. These institutions must document 1) extent of leveraging of NASA funds to increase the total R&D and or education funding in the department(s) receiving the direct NASA awards; 2) how research and/or education programs are sustained after the end of direct NASA funding that initiated the research and/or education program; 3) patents issued, patent applications, refereed publications, and technologies transferred for commercialization from the NASA funded initiatives; 4) the institution's support (faculty release time, facilities provided, etc.) for the NASA research and education programs funded over the past five years; and 5) the number and percentage of minorities and females participating in the management structure and Ph.D. education component, where applicable, of the projects receiving NASA funds.

Successful proposals will be funded as cooperative agreements, grants, or contracts. Funding for each URC may not exceed $1.2 million per year for each of the five years; successful proposals from Group I URC institutions will be limited to $4.8 million over four years. NASA funding beyond the first year is based on an annual evaluation of progress and the availability of funds.

We appreciate your interest and participation in NASA programs.

George E. Reese
Associate Administrator
Office of Equal Opportunity Programs

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Appendices

I. INTRODUCTION

The NASA Office of Equal Opportunity Programs offers this opportunity to propose for funding, in cooperation with the Enterprise Offices of Aerospace Technology, Biological and Physical Research, Earth Science, Human Exploration and Development of Space, and Space Science.

The first competition for URC's, open only to Historically Black Colleges and Universities (HBCU's), was held in Fiscal Year (FY) 1991. It resulted in five-year awards to seven universities designated as NASA HBCU Research Centers. A second competition for new awards, open to both HBCU's and Other Minority Universities (OMU), was held in FY 1995. It resulted in five-year awards to four HBCU's and three OMU's designated as Minority University Research Centers. Shortly thereafter, the HBCU Research Centers and the Minority University Research Centers were formally combined into a single program, the NASA University Research Centers (URC's) at Minority Institutions, with the two sets of awardees designated as Group 1 and Group 2, respectively. In FY 1996, the Group 1 URC's were invited to propose for a second five-year period. After extensive reviews, all seven Group 1 URC's were awarded a second five-year term. In FY 2000, the Group 2 Centers were renewed for a second five-year period after extensive reviews.

These current proposal guidelines are soliciting new proposals for a five-year period on or about October 1, 2002 to September 30, 2007. The award funding level for this solicitation will be limited to a maximum of $1.2 million per year per award. First year awards must be supported with a detailed implementation/costing plan that clearly demonstrates how funds requested will be fully utilized during the first 12 months of the award. The total number of awards will be based upon the results of the review process and the availability of Agency funding**.**

II. GOALS AND OBJECTIVES

The goal of this process is to continue NASA's commitment to achieving a broad-based, competitive aerospace research capability at minority institutions (MI's) that will:

- Expand the nation's base for aerospace research and development;
- Foster new aerospace science and technology concepts;
- Develop mechanisms for increased participation by faculty and students at MI's in the research programs of NASA's science and technology Enterprises; and
- Increase the numbers of advanced degrees awarded to U.S. citizens from MI's in NASA-related fields.

The specific objectives for URC's are to:

- Establish significant, multi-disciplinary scientific, engineering, and/or commercial research centers at the host university that contribute substantially to the programs of one or more of the five NASA Strategic Enterprises described in the NASA Strategic Plan: Aerospace Technology, Biological and Physical Research, Earth Science, Human Exploration and Development of Space, and Space Science.

- Move increasingly towards gaining support from sources outside the URC program by aggressively pursuing additional funding opportunities offered by the NASA Enterprises, industry, and other funding agencies; and

- Improve the rates at which U.S. citizens, who historically have been underrepresented in NASA-related fields, are awarded advanced degrees at their respective universities in NASA-related fields, and the rates at which undergraduate degree recipients go on to earn advanced degrees in such fields at other institutions.

III. TECHNICAL DESCRIPTION

Areas Of Interest NRA 02-OEOP-01

URC's are expected to perform scientific, engineering and/or commercial research, and student development that contributes to one or more of the five NASA Strategic Enterprises. Each Enterprise covers a major area of the agency's research and development efforts. The NASA Enterprises are listed below:

Aerospace Technology: The mission of this Enterprise is to pioneer the identification, development, verification, transfer, application, and commercialization of high-payoff aeronautics and space transportation technologies. The Enterprise is managed by the Office of Aerospace Technology, (http://www.aero-space.nasa.gov/).

Biological and Physical Research: The mission of this Enterprise is to conduct basic and applied research to support human exploration of space and to take advantage of the space environment as a laboratory for scientific, technological, and commercial research. NASA's Office of Biological and Physical Research creates unique cross-disciplinary research programs, bringing the basic sciences of physics, biology, and chemistry together with a wide range of engineering disciplines. The Enterprise asks questions that are basic to our future: How can human existence expand beyond the home planet to achieve maximum benefits from space? How do fundamental laws of nature shape the evolution of life? The Enterprise is managed by the Office of Biological and Physical Research, (http://spaceresearch.nasa.gov/).

Earth Science: The mission of NASA's Earth Science Enterprise is to develop understanding of the total Earth system and the effects of natural and human-induced changes on the global environment. Through research, applications, and technology development programs, the Office of Earth Science (OES) seeks to provide scientific answers to the overarching question: How is the Earth changing and what are the consequences for life on Earth?

The scope and complexity of this question lead to the following questions that constitute the conceptual approach taken by the Office of Earth Science to improve our knowledge of the Earth system.

- How is the global Earth system changing?
- What are the primary forcing functions of the Earth system?

- How does the Earth system respond to natural and human-induced changes?
- What are the consequences of change in the Earth system for human and societal affairs?
- How well can we predict the changes to the Earth system that will take place in the future?

These five questions define a pathway of variability, forcing, response, consequences, and prediction that are taken to enumerate further more specific questions which provide direction and focus to the basic and applied research programs supported by the Office of Earth Science. More details may be found at http://www.earth.nasa.gov.

Human Exploration and Development of Space: The mission of this Enterprise is to open the space frontier by exploring, using and enabling the development of space and to expand the human experience into the far reaches of space. The Office of Space Flight programs provide safe, assured transportation to and from space for people and payloads, and develop and operate habitable space facilities to enhance scientific knowledge, support technology development, and enable commercial activity. The Enterprise is managed by the Office of Space Flight, (http://www.hq.nasa.gov/osf/).

Space Science: The mission of the Space Science Enterprise is to solve mysteries of the universe, explore the solar system, discover planets around other stars, search for life beyond Earth from origins to destiny, chart the evolution of the universe and understand its galaxies, stars, planets, and life. The Space Science Enterprise is managed by the Office of Space Science, (http://spacescience.nasa.gov/).

There should be an emphasis on developing multidisciplinary core expertise capable of successfully leveraging support from NASA sources outside of the URC program and on increasing student production at the graduate level in fields that contribute to NASA's mission. The proposals should succinctly articulate the strategic focus of the research activities and the approach to meeting the objectives for student development at the undergraduate and graduate levels.

Each URC is to identify in its proposal the primary NASA Enterprise towards which the URC research activities will be directed. The primary NASA Enterprise will be responsible for reviewing and providing guidance on the work being performed. Additional NASA Enterprises that will benefit from the URC research activities may also be identified. Information on the science and technology objectives of each of the NASA Enterprises can be found in the NASA Strategic Plan at http://www.hq.nasa.gov/office/codez/plans.html. Clarifications and additional details are available through the NASA Headquarters points-of-contact listed in Appendix I of this solicitation.

Commercial research refers to the development of dual use technologies that meet both NASA mission needs and other national objectives. Such research offers opportunities to broaden partnerships with industry through the commercialization of products produced and/or developed from NASA supported research programs. Information on commercial research, technology transfer, and commercial technology development may be obtained through the NASA Homepage by following the links to the Office of Life and Mircrogravity Sciences and Applications Space Development and Commercial Research Division (http://www.hq.nasa.gov/office/olmsa/spd/index.htm), NASA Technology Commercial Technology Network (http://nctn.hq.nasa.gov/index.html), Office of Biological and Physical Research (http://spaceresearch.nasa.gov/), and the Office of Earth Science Commercial Strategy (http://www.hq.nasa.gov/office/nsp/mtpe.htm).

The White House Executive Order 12876, which mandates the NASA support of HBCU's, strongly emphasizes developing the human resource potential represented by students served by HBCU's. The URC's are expected to contribute to such human resource development by putting a special emphasis on contributing to advanced degree production among minority institution students who are U.S. citizens and who have historically been underrepresented in NASA-related fields. Special efforts to include students with disabilities in such programs are encouraged. Both advanced degree programs at the URC's home institutions and undergraduate programs that direct students to other institutions where they obtain their advanced degrees, are encouraged.

IV. COLLABORATIONS AND INTERACTIONS

URC's are encouraged to build collaborations with NASA Centers, universities, industry, and other government agencies when such collaborations enhance the ability of the URC to achieve its objectives, to leverage significant sources of additional funding, and/or to obtain essential services not available at the URC's home campus.

The NASA Centers and the Jet Propulsion Laboratory (JPL) are responsible for implementing many of the plans, programs, missions, and activities established by the Enterprises. The work areas for which each Center/JPL is responsible are defined by the primary missions and Center of Excellence responsibilities assigned to that Center/JPL. The URC's are encouraged to build collaborations with NASA Centers/JPL when such collaborations will mutually benefit the URC's and NASA Center's/JPL's abilities to carry out the Enterprise goals. Further information on Center and JPL responsibilities and activities are available through links in the NASA Home Page or from the Center and JPL points-of-contact listed in Appendix

Each URC is to propose a Lead NASA Center that will be responsible for monitoring the award and collaborating in the proposed research program.

Universities, industry, and other government agencies play major roles in carrying out much of NASA's work, and in conducting research and development work in related areas. In some cases, such work is procured and directed by the NASA Centers. In other cases, the work is procured and directed by NASA Headquarters. Carefully constructed partnerships between the URC's and these other entities may lead to substantial benefits for all parties involved. The URC's may gain access to special purpose facilities, exposure to new work areas, leveraged support for their research efforts, and potential sources of future funding. Industry and other universities may gain from the capabilities that the URC's bring in specialized work areas, and from the URC students who might be recruited as future employees or graduate students. NASA gains from the increased productivity that these partnerships bring to missions and projects.

While the myriad of benefits from partnerships such as those described above are important, they cannot outweigh the primary goal of this NRA: development of the URC's research capabilities. Therefore, the portion of NASA URC funds that may be used for subcontractor awards is limited to no more than 25 percent of the total budget request from NASA.

Services provided by NASA Centers or JPL will be identified as NASA responsibilities in the NASA proposal. Proposers must contact in advance NASA Centers (or JPL) from which services will be requested in order to ascertain the availability and anticipated costs of such services. All costs incurred by JPL and costs incurred by NASA Centers for the use of facilities and contracted technical support come from URC program funds. Therefore, to the extent that the performance of NASA responsibilities under a cooperative agreement entails the incurrence of these costs, the amount of funding made available to the recipient will be reduced accordingly. Costs incurred by NASA Centers for civil servant salaries, travel, and in-house research will not affect the funding of the award. (See Section VII for budget preparation instructions.)

V. TERMS OF THE AWARD

Funding, Duration, and Reporting

Each URC will be established under a cooperative agreement between a lead NASA Center[1] and the successful applicant. The award period will be on or about October 1, 2002 to September 30, 2007. The award level for this period will be limited to a maximum of $1.2 million per year, successful proposals from Group I URC institutions will be limited to $4.8 million over four years. Continued funding will be based on an annual evaluation of documented progress, and on the availability of funds. Continuation funding may be reduced if cost reporting indicates a significant level of unexpended funding.

The NASA funds may be used by the university for support of research faculty staffing and release time; for support of undergraduate students, graduate students, post-doctoral fellows and their research; and for research-related equipment, travel, and materials.

The total funding requested from the NASA URC program may not exceed $1.2 million for each of the five years (Group I URC institutions successful under this announcement are limited to four years). A portion of the URC funding may be redirected internally within NASA to offset costs incurred for the use of facilities, contracted technical support at NASA Centers, or technical support from JPL. The costs of such NASA services are included within the funding limits described above, and they should be indicated on Part B of the Proposal Data Sheet (Appendix F).

Additionally, the following restrictions are placed on the use of funds:

A minimum of 25 percent of the five-year total must be allocated for undergraduate and graduate student support (including fringe benefits and indirect costs, if any). All students supported must be US citizens.
A maximum of 25 percent of the five-year total may be used for acquiring direct NASA services related to the conduct of research (i.e., cost for use of NASA test facilities, contracted technical support, etc.).
A maximum of 50 percent of the annual salary for the project director, co-directors, and senior researchers may be charged to this award.
A maximum of 15 percent of the five-year total may be used for infrastructure (equipment or laboratory facilities)[2]

[1] In cases where the URC work supports a NASA Enterprise, but is not directly related to work being carried out at any NASA Center, NASA Headquarters may serve the role of the Lead NASA Center.
[2] Occasional exceptions may be requested when there is a clear need for the equipment and there is no impact on student support.

The budget should include sufficient funds for an annual trip by the Principal Investigator (PI) and other key personnel to a two-day program meeting, typically held in Washington, DC.

All Group 3 URC awards will be incrementally funded. Each URC must provide a cost schedule for year one funding, using the format in Appendix C.

Written annual project progress reports will include submission of annual outcomes and student tracking reports and an annual technical assistance/coordination site visit with the managing NASA Center/JPL. The program also will include annual meetings requiring involvement by the principal investigators and other key personnel from each project.

Cooperative Agreement Special Conditions

Where an award is executed as a cooperative agreement, it is anticipated that there will be substantial NASA involvement during performance of the effort. The recipient can expect NASA collaboration or participation in the management of the project. The terms "grant" and "grantee" mean "cooperative agreement" and "recipient of cooperative agreement," respectively, wherever the terms appear in provisions and special conditions included in this agreement. NASA and the recipient mutually agree to the following statement of anticipated cooperative interactions which may occur during the performance of this effort.

Statement of Cooperative Interactions

The responsibilities of both the grantee and NASA for program management and reporting are as described in the “Management and Reporting Guidelines for NASA University Research Centers at Minority Institutions,” hereafter referred to as the “Management Guidelines,” as summarized below.

Grantee's Responsibilities

A. The University will assume primary responsibility for planning, operating, and managing the Project as described in their original five-year proposal and as modified in subsequent continuation proposals.

B. The grantee shall appoint a URC Director for the project supported by this Agreement. If the director to be named is different from the individual identified in the proposal, the NASA Technical Officer shall be notified in writing, and the written approval of the Director, NASA Office of Equal Opportunity Programs, Minority University Research and Education Division (MURED), must be secured, prior to appointing the new director.

C. The grantee shall carry out the actions as recommended by the NASA Technical Monitor.

D. The grantee shall submit a progress report and continuation proposal, and host an on-campus NASA Technical Review Committee (TRC) site visit annually, following the schedule in the Management Guidelines.

E. The grantee shall submit to the Technical Officer a copy of each quarterly Federal Cash Transactions Report (SF 272) concurrently with submission of the original SF 272 to the NASA accounting office.

F. Final Report: A final report, in lieu of an annual report, will be due within three months of the expiration date of this Agreement.

G. All reports and plans shall be sent in the specified number of copies to the following destinations: (Provide addresses and alter requirements as necessary.)

No. of Copies	Addresses
1	NASA CENTERS
5	NASA Technical Officer
5	NASA Technical Monitor

NASA Responsibilities and Federal Requirements

A. The key NASA management officials, as detailed in the Management Guidelines, are the Associate Administrator for the NASA Office of Equal Opportunity Programs (OEOP), the Director of OEOP's Minority University Research and Education Division, the NASA Centers / JPL Minority University Program Coordinator (who also serves as Technical Officer), and the Chair of the NASA TRC (who also serves as Technical Monitor), and the TRC members.

B. Performance of work under this cooperative agreement shall be subject to the general oversight and monitoring of the NASA officials described above. The NASA involvement may include, but is not limited to:

1. Guidance and advice on all phases of the project.

2. Participation in resolution of technical, managerial, and scheduling concerns.

3. Review and, where required by the Agreement, approval of reports and information to be delivered by the grantee.

4. NASA shall receive in a timely manner notices and minutes of all meetings and other documents of the advisory committee(s).

C. NASA technical involvement must be consistent with the general statement of work as stated in this Agreement. The NASA Technical Officer and Technical Monitor do not have the authority and may not:

1. Request additional work outside the general scope of the Agreement.

2. Cause an increase or decrease in the estimated cost or time required for performance under the Agreement.
3. Change any of the expressed terms and conditions of the Agreement.

D. If, in the opinion of the grantee, any instructions or requests issued by the NASA officials listed above are within one of the categories as defined in 1 through 3 in the above paragraph, the grantee shall not proceed, but shall notify the Grants and Contracts Officer and shall request, if appropriate, modification of the Agreement.

URC Management and Self-Evaluation

The URC, through its Director, will be responsible for the development and operation of the center, the content of the research, the achievement of the planned goals and objectives, and national dissemination of research and education activities. The URC must propose measures against which it will evaluate the performance of its operation. The performance measures must include the data set identified in the Uniform Outcomes Submission located at the following NASA URL: (http://mured.nasaprs.com/). The data required for the NASA student-tracking system is currently under development. The URC must also establish a non-NASA advisory committee to provide feedback and advice on the URC's accomplishments and plans. Additional measures that contribute to the proposed project and additional student tracking data may be added.

NASA Management and Review Mechanisms

The URC program is managed from NASA Headquarters by the Minority University Research and Education Division (MURED) of the Office of Equal Opportunity Programs, in cooperation with Headquarters Program Offices and NASA Centers. The Director of MURED, as designated by the Associate Administrator for Equal Opportunity Programs, has final management responsibility for all program policies and procedures and for oversight of the URC program. A Technical Officer at the lead NASA Center for each URC will be appointed to oversee the procurement and administrative management of the award. The Technical Officer will appoint a NASA Technical Monitor who will serve as NASA's primary technical representative to the URC. The Technical Monitor's responsibilities will include reviewing and recommending to the Technical Officer the disposition of continuation proposals and any proposed changes in the program, and promoting greater involvement of URC researchers in NASA activities.

Two mechanisms will be employed to review each established URC. First, a NASA Technical Review Committee (TRC), composed of representatives from NASA Enterprises, NASA Centers, and JPL will be established for each URC. The NASA Technical Monitor will chair the TRC. The TRC will be responsible for conducting an annual review, ensuring that the program goals are being met, advising the URC on technical requirements, facilitating the flow of information between the URC and NASA, and promoting greater involvement of URC personnel in NASA activities. Secondly, annual reports to include key performance metrics will be required. These evaluations will be used by the Technical Officer as the basis for annual funding recommendations for each URC.

VI. ELIGIBILITY REQUIREMENTS

Institutions

Institutions qualifying for this funding opportunity must:

1. Offer graduate degrees in engineering, mathematics, or science disciplines and;

2. Be designated by the Department of Education as a Historically Black College or University under Title III of the Higher Education Act of 1965, as amended (see 34 CFR 608.2).

Only institutions that meet the above criteria can be the recipient of a NASA Group 3 HBCU URC award. Any arrangements and/or agreements to have the administration of the award done by a third party is between the awardee and the third party and does not require NASA's involvement or approval. There will be no more than one URC award per institution. NASA Group II URC's are not eligible under this announcement.

Principal Investigators

Principal Investigators must meet all of the following criteria at the time the proposal is submitted:

1. Must be a tenure or tenure-track faculty member of the eligible, applicant institution; and

2. Must have a Ph.D. or equivalent in an engineering, mathematics or science discipline applicable to NASA research needs.

Authorizing Official

The Authorizing Official must be an institutional official, (e.g., president, vice president), authorized to legally bind the submitting organization.

VII. PROPOSAL GUIDELINES AND SUBMISSION INSTRUCTIONS

Notice of Intent

In order to plan for a timely and efficient peer review process, *Notices of Intent* (NOI's) to propose are strongly encouraged by the date given in this NRA. The submission of an NOI is not a commitment to submit a proposal, nor is information contained therein considered binding on the submitter. A proposal may still be submitted even if an NOI was not submitted. Submit NOI's electronically by entering the requested information through the SYS-EYFUS Web site located at http://proposals.hq.nasa.gov/.

User Identifications (User ID)

User ID and passwords are required by NASA security policies in order to access the SYS-EYFUS Website. Prospective Principal Investigators can confirm whether they have a SYS-EYFUS User ID and Password by going to http://proposals.hq.nasa.gov/ and performing the following steps:

1. Click the hyperlink for NEW USER; this will take the user to the personal information Search Page. Enter the user's first and last name. SYS-EYFUS will search for matching record information in the SYS-EYFUS database.

   a. If matches are found, select the "correct" record from those displayed and then click on CONTINUE.

   b. If no exact match is found, select NONE OF THE ABOVE click on CONTINUE. Then complete the NEW USER form. Follow the online instructions for updating and/or entering new data. In addition, to adding general contact information, areas of interest and expertise are required.

   c. If no match is found, select ADD RECORD. Follow the online instructions for updating and/or entering new data. In addition, to adding general contact information, areas of interest and expertise are required.

A User ID and password will be emailed to you.

With the user ID and password, login to the SYS-EYFUS website and follow the instructions for NEW NOTICE OF INTENT.

As a minimum, the following information will be requested:

- NRA number, alpha-numeric identifier, (Note: this may be included on the website template);
- The Principal Investigator's name, mailing address, phone number, and email address;
- The name(s) of any Co-Investigator(s) and institution(s) known by the NOI due date;
- A descriptive title of the intended investigation; and,
- A brief (200-300 word) description of the investigation to be proposed.

Note that this NOI may also be the preliminary version of the proposal *Cover Page/Proposal Summary*. When a NOI is submitted, the Website allows the user to modify and/or update this information for the final *Cover Page/Proposal Summary*. Edits may be made up until midnight on the deadline date.

Amendatory Guidelines Applicable to NRA 02-OEOP-01

General guidelines for proposal preparation are given in Appendix A, Instructions for Responding to NASA Research Announcements. However, certain sections listed in Appendix A must be appropriately modified to meet the intent of the URC program. For convenience, the following sections augment the descriptions in Appendix A.

Proposal Guidelines

All proposals must originate from a U.S. university or college that meets the designated criteria. Written eligibility certification must be submitted for both the university and the PI. (See Appendix D.) The Length section of Appendix A (Section e) is modified to require that the proposal's narrative section be limited to 50 pages. Reviewers will be instructed and obligated to review only the first 50 pages of the description.

- The original and ten copies, numbered 1 through 10, must be received by NASA Headquarters by the deadline specified. A submitted proposal must be on standard-sized paper (8.5 x 11), with one-inch margins (top, bottom, left and right), and 12-point font. To facilitate the recycling of proposals after review, proposals should be submitted on plain, white paper only. The use of cardboard stock, plastic covers, colored paper, etc., is prohibited. Each proposal copy shall contain all submitted material, including a copy of the transmittal letter if it contains substantive information.

Budget Guidelines

The "Proposed Costs" discussed in Section (c.8) of Appendix A is supplemented by the following information concerning proposal cost detail.

- The proposal should contain sufficient cost detail and supporting information to facilitate a speedy evaluation and award. Dollar amounts proposed with no explanation (e.g., Equipment: $5,000, or Labor: $23,000) may cause delays in funding should the proposal be selected. The proposed costing information should be sufficiently detailed to allow the Government to identify cost elements for evaluation purposes. Generally, the Government will evaluate costs in terms of their reasonableness and acceptability. Each category should be explained. Offerors should exercise prudent judgment since the amount of detail necessary varies with the complexity of the proposal.

- Direct labor costs should be separated by titles or disciplines such as Principal Investigator and clerical support, with percent of time. Please note, it is OEOP policy not to fund more than fifty percent of direct cost salaries (excluding post-doctoral researchers and students). Estimates should include a basis of estimates, such as currently paid rates or outstanding offers to prospective employees. With regard to other costs, each significant category should be detailed, explained, and substantiated. For example, proposed equipment purchases should specify the type of equipment, number of units, and unit cost. Requested travel allowances should include the number of trips, duration of each trip, air fare, per diem, rental car expenses, etc.

- Indirect costs are included in the award amounts. Indirect costs should be explained to the extent that it allows the Government to understand the basis of the estimates.

VIII. PROPOSAL FORMAT, CONTENT, AND SUBMISSION

Formatting and Content

The proposal should be submitted according to the order listed in the following table. Each proposal should adhere to the table guidelines for the maximum number of pages for that section.

Proposal Content	Page Guideline	Section and Appendix References
1. Proposal Cover Page: The proposal cover page must be signed by an institutional official who is authorized to certify institutional support and sponsorship of the investigation and of the management of the proposal. The electronic proposal submission process, located at http://proposals.hq.nasa.gov/, generates this form. The Proposal Cover Page <u>includes</u> the following items: ***Proposal Abstract:*** Include a description of the project's objectives, number of participants in the project, method of approach, and the measurable outcomes. A sample electronic Proposal Abstract page is included in Appendix B. ***Budget Figures:*** Include figures for all five years of the proposed program in the spaces provided. ***Certifications Regarding Lobbying, Debarment, Suspension and Other Responsibility Matters and Drug-Free Workplace Requirements Form:*** The authorizing institutional signature on the Proposal Cover Page automatically certifies that the proposing institution has read and is in compliance with these certifications. No additional form is necessary. For your convenience, a sample of this form is provided in Appendix E. **Please Note: The length of the proposal cover page may vary depending upon the length of the proposal abstract/summary. <u>However, the total cover-page packet, which includes the abstract and budget figures, will count as only one page total.</u>**	1	Sample Cover Page Located in Appendix B From the "**View Submitted Information"** print the Cover Page, <u>Budget and Abstract</u> by hitting the "Print" icon on your Internet browser. Sample "Certifications Regarding Lobbying…" Located in Appendix E
2. Executive Summary: Include an executive summary of the proposed research and education activities of the center, describing the objectives and method of approach. Include how the research relates to NASA interests and major accomplishments planned for the performance period. The first paragraph (100-200 words) should serve as a non-proprietary, stand-alone description of the proposed URC.	2	
3. Table of Contents	2	

Proposal Content	Page Guideline	Section and Appendix References
4. Certification of Institution and Principal Investigators Eligibility Form	1	Appendix D
5. Certifications Regarding Lobbying, Debarment, Suspension and Other Responsibility Matters and Drug-Free Workplace Requirements Form. (This form does not have to be submitted with the proposal. The authorizing institutional signature on the Proposal Cover Page certifies that the proposing institution has read and is in compliance with these certifications.)		Appendix E
6. Proposal Data		Appendix F
7. Budget Narrative: Summary budget by year for each of the five years. A minimum of 25 percent of the total budget must directly support students who are U. S. citizens. Students' support should be categorized under "Direct Labor" of Appendix B.		
8. Equipment List		Appendix G
9. Proposed Center Description: Narrative description, not to exceed 50 pages, of the proposed center's relationship to NASA's objectives and its technical, human resource development, management and evaluation, and resources plans. Identify the NASA center or JPL collaborator and the proposed collaborative effort.	50	
10. Past Performance: For proposers meeting the requirements for reporting under this criterion, see Section IX for further information. Narrative and supporting data chart(s) providing required information, not to exceed five pages.	5	
11. Background Information: Brief biographical sketches, not to exceed one page each, for the PI and each of the Co-I's. (Refereed papers in technical journals should be clearly noted as such, and distinguished from abstracts, meeting proceedings, and other non-refereed publications.) Tables showing the numbers of students involved, the numbers of degrees awarded, and the extent of leveraged funding.		
12. Current and Pending Support: Summary of current and pending Federal support of all projects with substantial involvement of the PI and each of the Co-I's for whom support is requested. Include: source of support; project title with grant or contract number; award amount by government fiscal year; and total award amount, award period, level of effort in person-months, and the location where the work is to be performed.		Appendix H

Proposal Submission

To assist in expediting the evaluation, selection and award processes, **please submit the Proposal Cover Page electronically (Appendix B).** The comprehensive Proposal Cover Page can be accessed via the SYS-EYFUS system at http://proposals.hq.nasa.gov/.

1. Complete and Submit Cover Page (the system automatically saves/submits your entries as you advance from screen to screen—there is no final "Submit" button after you have entered the data).

2. Print the Cover Page by selecting the "Print" icon on your Internet browser.

3. The Principal Investigator and the University Authorizing Official must sign in the designated areas.

4. Attach original Cover Page that bears the original signatures to the original proposal.

5. In addition, from the "**View Submitted Information"** print the Budget and Abstract.

The original and 10 copies of the proposal package must be received at NASA Peer Review Services no later than 4:30 p.m. Eastern Standard Time, **May 21, 2002**. Proposals received after this time are ineligible for consideration. This supersedes Section (g) of Appendix A (Instructions for Responding to NRA's NASA Supplementary Regulations).

Proposals sent via commercial delivery or courier service or through the U.S. Postal Service by first class, registered or certified mail should be addressed as follows:

Mailing Address:

NASA Peer Review Services
Attention: URC (NRA 02-OEOP-01)
500 E Street, SW, Suite 200
Washington, DC 20024-2760

IX. PROPOSAL COMPLIANCE, EVALUATION, AND AWARDS PROCESS

The project description should reflect the unique combination of the institution's interests and capabilities. It should clearly and concisely justify the requested NASA support. Important components are as follows:

Note: The Project Narrative is Restricted to a Maximum of 50 Pages. Appended material (other than required forms and certificates) will not be accepted.

Sections:

Relevance to NASA's Objectives: 1) describe the relevance of the proposed work to the objectives of the proposed primary and other NASA Enterprise(s), including the potential contribution of the effort to NASA's mission; and 2) describe the plans and expectations for long-term growth.

Technical: 1) provide a technical program plan that describes in detail the proposed specific research objectives; the methods, approaches, concepts, or advanced technologies to be used; and the potential impact of the proposed research to its field; 2) describe the scientific qualifications, capabilities, and experience of the proposed Principal Investigator and all other key personnel who are proposing to help achieve the proposal's objectives; 3) describe the proposing institutions' capabilities, related experience, facilities, techniques, or unique combinations of these that are integral factors for achieving the proposal objectives; and 4) indicate the relationship of the proposed work to the state-of-the-art in the field. If applicable, describe any plans for technology transfer or commercial products development; and present a partnership plan that describes any proposed collaborations with industry, other universities, NASA, and/or other government agencies and indicate how they will enhance the expected outcomes.

Note: If a particular contribution of a collaborating institution is essential to the performance of the proposed research, then a letter of commitment outlining and confirming that commitment, signed by a management official authorized to commit that institution, must be submitted. Each commitment letter shall indicate agreement with the nature of the collaboration and state the specific resources being committed. All commitment letters shall refer to the NASA Group 3 HBCU University Research Centers, and shall be included with the proposal's required forms and certificates.

Human Resource Development: 1) present the strategy for increasing the number of degrees awarded to U.S. Citizens who historically have been underrepresented in NASA-related fields. This cannot preclude the opportunity for direct federal benefits to flow to all otherwise eligible students. Particular attention should be paid to the contribution that the URC would make directly and/or indirectly to advanced degree production, and to the means by which the URC will track that contribution; 2) present evidence of past successes in contributing to such degree production; 3) present in chart form the planned number of postgraduate, graduate, and undergraduate students who will participate in the research and be graduated by the program (by year); and the pre-award baseline to which these numbers will be compared; and 4) provide information on new educational activities (e.g., new courses, new degree programs, other curriculum changes).

Management and Evaluation: 1) present the proposed organizational and management structure of the URC, including: a) reporting structure of the URC within the university; b) leadership experience of

the proposed URC Director; c) key personnel; d) future staff positions committed to the program; and e) the approach (es) to building a research infrastructure that will support researchers, meet the objectives of the URC, and support the educational goals of the university; 2) describe the plans for interaction and dissemination of information among project investigators; 3) describe in detail the metrics that will be used to evaluate outcomes, the means by which the necessary information will be acquired and aggregated, and any other means by which the URC's progress will be evaluated; 4) describe the structure and membership of the proposed external advisory committee; and 5) describe the plans for national dissemination of results.

Past Performance: (This information pertains to those institutions meeting the $1 million annual and/or $4 million cumulative threshold with regards to receipt of MURED funds). Document: 1) extent of leveraging of NASA funds to increase the total R&D and or education funding in the department(s) receiving the direct NASA awards; 2) research and/or education programs sustained after the end of direct NASA funding that initiated the research and/or education program(s); 3) from the NASA funded initiatives identify patents issued, patent applications, refereed publications, and technologies transferred for commercialization, and 4) the institution's support (faculty release time, facilities provided, etc.) for the NASA research and/or education program(s) funded over the past five years.

Resources: 1) describe the resource plan for the five-year (or four-year for Group I URC applicants) award period, indicating the approach for distributing funds over the five years and among the various proposed activities. Indicate any measures that have been taken to gain cost savings or efficiencies; 2) describe any existing facilities and equipment available to the project, and justify the need for any additional major equipment purchases or facilities upgrades; 3) present the university's commitment of resources to the project, including such items as staffing, facilities, laboratories, and waivers of indirect costs; 4) describe the relationship of the proposed project to the university's long-term strategic plan for institutional development; 5) describe funds available or expected to be available through leveraging from other sources; and 6) present the plan for continuing the work beyond the initial five years and achieving self-sufficiency.

Evaluation Criteria

This supersedes the evaluation criteria in Section (i) of Appendix A. Each proposal will be screened for its relevance to NASA's objectives, as described below:

1. Relevance to NASA's Objectives:

Include information about relevance of the proposed work to the specific objectives of the proposed primary and other NASA Enterprise(s), including consideration of the potential contribution of the effort to NASA's mission. Of particular importance is the proposed alignment with NASA's technology and mission needs near and mid-term and the potential for long-term growth. This factor will be evaluated.

2. Intrinsic Merit

Intrinsic merit of the work proposed, including consideration of the following factors, listed in approximate order of decreasing importance:

a. The overall scientific and/or technical merit of the proposal and/or unique and innovative methods, approaches, concepts, or advanced technologies demonstrated by the proposal, and the potential impact of the proposed research to its field;

b. The qualifications, capabilities, and experience of the proposing Principal Investigator and all other personnel who are proposing to help achieve the proposal's objectives;

c. The proposing institution's capabilities, related experience, facilities, techniques, or unique contributions of these that are integral factors for achieving the proposal objectives; and

d. The overall standing of the proposal against the known state of the art.

3. Human Resource Development:

- The extent to which the URC will contribute to increasing the number of degrees awarded to U.S. citizens who historically have been underrepresented in NASA-related fields, and to which the URC will contribute directly and/or indirectly to advanced degree production for such students;
- Evidence of past successes in contributing to such degree production; and
- Adequacy of the plans for tracking and reporting the progress of students during and after their involvement in the URC.

4. Management and Evaluation:

- The extent to which the proposed management structure and team will lead to a well-coordinated, efficiently-managed, and productive effort;
- Leadership qualities of the URC Director and management team;
- Documented competence of the management team in regard to development, coordination, implementation, and evaluation of the proposed program;
- Adequacy of plans for interaction and dissemination of information among project investigators;
- Feasibility and utility of the key metrics, the plans for acquiring and aggregating data, the pre-award baseline to which data will be compared, and any other means by which the URC's progress will be evaluated;
- Extent to which these plans will provide a clear picture of progress towards success; and
- Appropriateness of proposed advisory committees and of dissemination plans.

5. Past Performance:

This criterion will not be applied to those proposals not meeting the annual and/or cumulative MURED funding threshold(s). For those institutions meeting the $1 million annual and/or $4 million cumulative MURED funding thresholds:

- Document extent of leveraging of NASA funds to increase the total R&D and or education funding in the department(s) receiving the direct NASA awards;
- Document research and/or education programs sustained after the end of the direct NASA funding that initiated the research and/or education program(s);

- From the NASA funded initiatives identify patents issued, patent applications, refereed publications, and technologies transferred for commercialization;

- Document institutional support (faculty release time, facilities provided, etc.) for the NASA research and/or education program(s) funded over the past five years; and

- Document the number and percentage of minorities and females participating in the management structure on the NASA Awards, and the number and percentage of underrepresented minority involved in research at the Ph.D., MS, and BS levels.

6. Resources:

- Appropriate use of the budget to further URC objectives; realism and reasonableness of proposed costs;

- Adherence to budget guidelines and the extent of the university's commitment of resources (staff, facilities, laboratories, indirect support, etc.) to the proposed research program;

- Extent to which the proposed project is an integral part of the university's long-term strategic plan for institutional development, regardless of the outcome of this solicitation; and

- Availability of leveraged funds and viability of plans for achieving self-sufficiency.

Evaluation Techniques and Award Process

Proposals will be evaluated on the basis of merit review. Reviews may include mail reviews and/or panel reviews. The reviewer will assess the proposals based on the six criteria outlined in Evaluation Criteria where applicable.

NASA will assign the following narrative ratings for use by the reviewer in evaluating each of the six criteria (numerical ratings within Adjectival Ratings may be used):

ADJECTIVE	DEFINITION
Excellent	A comprehensive and thorough proposal of exceptional merit, with numerous strengths and no major weaknesses.
Very Good	A proposal that demonstrates overall competence and is worthy of support. However, the proposal has a few minor correctable weaknesses.
Good	Proposals with a reasonable sound response. There are more strengths than weaknesses.
Fair	Proposals with strengths and weaknesses approximately equal. However, as a whole weaknesses are not offset by strengths.
Poor	Proposals with serious deficiencies and should not be supported. There are numerous weaknesses and few strengths.

Review And Selection Process

Award decisions will be made following peer review of the proposals. Although the proposals will be reviewed by technical specialists in the areas of the proposal, and by specialists in institutional and student development, proposers are expected to provide sufficient detail to enable evaluation by persons who are knowledgeable of but not necessarily specialists in the proposed research. The proposals will be subjected to a rigorous peer review. The reviewers may include personnel from NASA, other government agencies, industry, and universities. Reviewers with appropriate expertise will be identified for each proposing URC. They will review the proposal, they may conduct an on-site review, and they will present recommendations to a NASA steering committee consisting of officials from the Office of Equal Opportunity Programs and the Enterprises. The steering committee will make final recommendations to the NASA selection official. The selection official will be the Associate Administrator for Equal Opportunity Programs, with the concurrence(s) of the Associate Administrator(s) of the Enterprise(s) that the work supports.

Contact for Questions

If you have any questions pertaining to this solicitation, you may call the appropriate NASA official listed at the beginning of this announcement, under Inquiries. You may also review the Frequently Asked Questions (FAQ) at the MURED website at http://mured.nasaprs.com.

Notification

NASA Programs are highly competitive. By reading the entire solicitation document and then carefully following the instructions, you will avoid the problem of having your proposal disqualified for failure to meet basic requirements. NASA has no obligation to evaluate proposals that do not meet all stated requirements.

Proposals will go through a competitive review process. Selection announcements will be made as listed with the "Important Program Dates" on Page (ii). Selection notification will be made in writing to the institution President. Principal Investigators will be notified by email. The selection official for this solicitation is NASA's Associate Administrator for the Office of Equal Opportunity Programs.

APPENDIX A

INSTRUCTIONS FOR RESPONDING TO NASA RESEARCH ANNOUNCEMENTS (JANUARY 2000)

NASA FAR Supplement 1852.235-72

(a) General.

(1) Proposals received in response to a NASA Research Announcement (NRA) will be used only for evaluation purposes. NASA does not allow a proposal, the contents of which are not available without restriction from another source, or any unique ideas submitted in response to an NRA to be used as the basis of a solicitation or in negotiation with other organizations, nor is a pre-award synopsis published for individual proposals.

(2) A solicited proposal that results in a NASA award becomes part of the record of that transaction and may be available to the public on specific request; however, information or material that NASA and the awardee mutually agree to be of a privileged nature will be held in confidence to the extent permitted by law, including the Freedom of Information Act.

(3) NRAs contain programmatic information and certain requirements, which apply only to proposals prepared in response to that particular announcement. These instructions contain the general proposal preparation information, which applies to responses to all NRAs.

(4) A contract, grant, cooperative agreement, or other agreement may be used to accomplish an effort funded in response to an NRA. NASA will determine the appropriate instrument. Contracts resulting from NRAs are subject to the Federal Acquisition Regulation and the NASA FAR Supplement. Any resultant grants or cooperative agreements will be awarded and administered in accordance with the NASA Grant and Cooperative Agreement Handbook (NPG 5800.1).

(5) NASA does not have mandatory forms or formats for responses to NRAs; however, it is requested that proposals conform to the guidelines in these instructions. NASA may accept proposals without discussion; hence, proposals should initially be as complete as possible and be submitted on the proposers' most favorable terms.

(6) To be considered for award, a submission must, at a minimum, present a specific project within the areas delineated by the NRA; contain sufficient technical and cost information to permit a meaningful evaluation; be signed by an official authorized to legally bind the submitting organization; not merely offer to perform standard services or to just provide computer facilities or services; and not significantly duplicate a more specific current or pending NASA solicitation.

(b) NRA-Specific Items. Several proposal submission items appear in the NRA itself: the unique NRA identifier; when to submit proposals; where to send proposals; number of copies required; and sources for more information. Items included in these instructions may be supplemented by the NRA.

(c) The following information is needed to permit consideration in an objective manner. NRAs will generally specify topics for which additional information or greater detail is desirable. Each proposal copy shall contain all submitted material, including a copy of the transmittal letter if it contains substantive information.

(1) **Transmittal Letter or Prefatory Material.**

(i) The legal name and address of the organization and specific division or campus identification if part of a larger organization;

(ii) A brief, scientifically valid project title intelligible to a scientifically literate reader and suitable for use in the public press;

(iii) Type of organization: e.g., profit, nonprofit, educational, small business, minority, women-owned, etc.;

(iv) Name and telephone number of the principal investigator and business personnel who may be contacted during evaluation or negotiation;

(v) Identification of other organizations that are currently evaluating a proposal for the same efforts;

(vi) Identification of the NRA, by number and title, to which the proposal is responding;

(vii) Dollar amount requested, desired starting date, and duration of project;

(viii) Date of submission; and Signature of a responsible official or authorized representative of the organization, or any other person authorized to legally bind the organization (unless the signature appears on the proposal itself).

(2) **Restriction on Use and Disclosure of Proposal Information.** Information contained in proposals is used for evaluation purposes only. Offerors or quoters should, in order to maximize protection of trade secrets or other information that is confidential or privileged, place the following notice on the title page of the proposal and specify the information subject to the notice by inserting an appropriate identification in the notice. In any event, information contained in proposals will be protected to the extent permitted by law, but NASA assumes no liability for use and disclosure of information not made subject to the notice.

Notice
Restriction on Use and Disclosure of Proposal Information

The information (data) contained in *[insert page numbers or other identification]* of this proposal constitutes a trade secret and/or information that is commercial or financial and confidential or privileged. It is furnished to the Government in confidence with the understanding that it will not, without permission of the offeror, be used or disclosed other than for evaluation purposes; provided, however, that in the event a contract (or other agreement) is awarded on the basis of this proposal the Government shall have the right to use and disclose this information (data) to the extent provided in the contract (or other agreement). This restriction does not limit the Government's right to use or disclose this information (data) if obtained from another source without restriction.

(3) **Abstract.** Include a concise (200-300 word if not otherwise specified in the NRA) abstract describing the objective and the method of approach.

(4) **Project Description.**

(i) The main body of the proposal shall be a detailed statement of the work to be undertaken and should include objectives and expected significance; relation to the present state of knowledge; and relation to previous work done on the project and to related work in progress elsewhere. The statement should outline the plan of work, including the broad design of experiments to be undertaken and a description of experimental methods and procedures. The project description should address the evaluation factors in these instructions and any specific factors in the NRA. Any substantial collaboration with individuals not referred to in the budget or use of consultants should be described. Subcontracting significant portions of a research project is discouraged.

(ii) When it is expected that the effort will require more than one year, the proposal should cover the complete project to the extent that it can be reasonably anticipated. Principal emphasis should be on the first year of work, and the description should distinguish clearly between the first year's work and work planned for subsequent years.

(5) **Management Approach.** For large or complex efforts involving interactions among numerous individuals or other organizations, plans for distribution of responsibilities and arrangements for ensuring a coordinated effort should be described.

(6) **Personnel.** The principal investigator is responsible for supervision of the work and participates in the conduct of the research regardless of whether or not compensated under the award. A short biographical sketch of the principal investigator, a list of principal publications and any exceptional qualifications should be included. Omit social security number and other personal items, which do not merit consideration in evaluation of the proposal. Give similar biographical information on other senior professional personnel who will be directly associated with the project. Give the names and titles of any other scientists and technical personnel associated substantially with the project in an advisory capacity. Universities should list the approximate number of students or other assistants, together with information as to their level of academic attainment. Any special industry-university cooperative arrangements should be described.

(7) **Facilities and Equipment.**

(i) Describe available facilities and major items of equipment especially adapted or suited to the proposed project, and any additional major equipment that will be required. Identify any Government-owned facilities, industrial plant equipment, or special tooling that are proposed for use. Include evidence of its availability and the cognizant Government points of contact.

(ii) Before requesting a major item of capital equipment, the proposer should determine if sharing or loan of equipment already within the organization is a feasible alternative. Where such arrangements cannot be made, the proposal should so state. The need for items that typically can be used for research and non-research purposes should be explained.

(8) **Proposed Costs (U.S. Proposals Only).** Proposals should contain cost and technical parts in one volume: do not use separate "confidential" salary pages. As applicable, include separate cost estimates for salaries and wages; fringe benefits; equipment; expendable materials and supplies; services; domestic and foreign travel; ADP expenses; publication or page charges; consultants; subcontracts; other miscellaneous identifiable direct costs; and indirect costs. List salaries and wages in appropriate organizational categories (e.g., principal investigator, other scientific and engineering professionals, graduate students, research assistants, and technicians and other non-professional personnel). Estimate all staffing data in terms of staff-months or fractions of full-time.

(i) Explanatory notes should accompany the cost proposal to provide identification and estimated cost of major capital equipment items to be acquired; purpose and estimated number and lengths of trips planned; basis for indirect cost computation (including date of most recent negotiation and cognizant agency); and clarification of other items in the cost proposal that are not self-evident. List estimated expenses as yearly requirements by major work phases.

(ii) Allowable costs are governed by FAR Part 31 and the NASA FAR Supplement Part 1831 (and OMB Circulars A-21 for educational institutions and A-122 for nonprofit organizations).

(iii) Use of NASA funds--NASA funding may not be used for foreign research efforts at any level, whether as a collaborator or a subcontract. The direct purchase of supplies and/or services, which do not constitute research, from non-U.S. sources by U.S. award recipients is permitted. Additionally, in accordance with the National Space Transportation Policy, use of a non-U.S. manufactured launch vehicle is permitted only on a no-exchange-of-funds basis.

(9) **Security.** Proposals should not contain security-classified material. If the research requires access to or may generate security-classified information, the submitter will be required to comply with Government security regulations.

(10) **Current Support.** For other current projects being conducted by the principal investigator, provide title of project, sponsoring agency, and ending date.

(11) **Special Matters.**

(i) Include any required statements of environmental impact of the research, human subject or animal care provisions, conflict of interest, or on such other topics as may be required by the nature of the effort and current statutes, executive orders, or other current Government-wide guidelines.

(ii) Proposers should include a brief description of the organization, its facilities, and previous work experience in the field of the proposal. Identify the cognizant Government audit agency, inspection agency, and administrative contracting officer, when applicable.

(d) Renewal Proposals.

(1) Renewal proposals for existing awards will be considered in the same manner as proposals for new endeavors. A renewal proposal should not repeat all of the information that was in the original proposal. The renewal proposal should refer to its predecessor, update the parts that are no longer current, and indicate what elements of the research are expected to be covered during the period for which support is desired. A description of any significant findings since the most recent progress report should be included. The renewal proposal should treat, in reasonable detail, the plans for the next period, contain a cost estimate, and otherwise adhere to these instructions.

(2) NASA may renew an effort either through amendment of an existing contract or by a new award.

(e) Length. Unless otherwise specified in the NRA, effort should be made to keep proposals as brief as possible, concentrating on substantive material. Few proposals need exceed 15-20 pages. Necessary detailed information, such as reprints, should be included as attachments. A complete set of attachments is necessary for each copy of the proposal. As proposals are not returned, avoid use of "one-of-a-kind" attachments.

(f) Joint Proposals.

(1) Where multiple organizations are involved, the proposal may be submitted by only one of them. It should clearly describe the role to be played by the other organizations and indicate the legal and managerial arrangements contemplated. In other instances, simultaneous submission of related proposals from each organization might be appropriate, in which case parallel awards would be made.

(2) Where a project of a cooperative nature with NASA is contemplated, describe the contributions expected from any participating NASA investigator and agency facilities or equipment, which may be required. The proposal must be confined only to that which the proposing organization can commit itself. "Joint" proposals, which specify the internal arrangements NASA will actually make, are not acceptable as a means of establishing an agency commitment.

(g) Late Proposals. Proposals or proposal modifications received after the latest date specified for receipt may be considered if a significant reduction in cost to the Government is probable or if there are significant technical advantages, as compared with proposals previously received.

(h) Withdrawal. Proposals may be withdrawn by the proposer at any time before award. Offerors are requested to notify NASA if the proposal is funded by another organization or of other changed circumstances, which dictate termination of evaluation.

(i) Evaluation Factors.

(1) Unless otherwise specified in the NRA, the principal elements (of approximately equal weight) considered in evaluating a proposal are its relevance to NASA's objectives, intrinsic merit, and cost.

(2) Evaluation of a proposal's relevance to NASA's objectives includes the consideration of the potential contribution of the effort to NASA's mission.

(3) Evaluation of its intrinsic merit includes the consideration of the following factors of equal importance:

(i) Overall scientific or technical merit of the proposal or unique and innovative methods, approaches, or concepts demonstrated by the proposal.

(ii) Offeror's capabilities, related experience, facilities, techniques, or unique combinations of these which are integral factors for achieving the proposal objectives.

(iii) The qualifications, capabilities, and experience of the proposed principal investigator, team leader, or key personnel critical in achieving the proposal objectives.

(iv) Overall standing among similar proposals and/or evaluation against the state-of-the-art.

(4) Evaluation of the cost of a proposed effort may include the realism and reasonableness of the proposed cost and available funds.

(j) Evaluation Techniques. Selection decisions will be made following peer and/or scientific review of the proposals. Several evaluation techniques are regularly used within NASA. In all cases proposals are subject to scientific review by discipline specialists in the area of the proposal. Some proposals are reviewed entirely in-house, others are evaluated by a combination of in-house and selected external reviewers, while yet others are subject to the full external peer review technique (with due regard for conflict-of-interest and protection of proposal information), such as by mail or through assembled panels. The final decisions are made by a NASA selecting official. A proposal that is scientifically and programmatically meritorious, but not selected for award during its initial review may be included in subsequent reviews unless the proposer requests otherwise.

(k) Selection for Award.

(1) When a proposal is not selected for award, the proposer will be notified. NASA will explain generally why the proposal was not selected. Proposers desiring additional information may contact the selecting official who will arrange a debriefing.

(2) When a proposal is selected for award, the procurement office in the funding installation will handle negotiation and award. The proposal is used as the basis for negotiation. The contracting officer may request certain business data and may forward a model award instrument and other information pertinent to negotiation.

(l) Additional Guidelines Applicable to Foreign Proposals and Proposals Including Foreign Participation.

(1) NASA welcomes proposals from outside the U.S. However, foreign entities are generally not eligible for funding from NASA. Therefore, unless otherwise noted in the NRA, proposals from foreign entities should not include a cost plan unless the proposal involves collaboration with a U.S. institution, in which case a cost plan for only the participation of the U.S. entity must be included. Proposals from foreign entities and proposals from U.S. entities that include foreign participation must be endorsed by the respective government agency or funding/sponsoring institution in the country from which the foreign entity is proposing. Such endorsement should indicate that the proposal merits careful consideration by NASA, and if the proposal is selected, sufficient funds will be made available to undertake the activity as proposed.

(2) All foreign proposals must be typewritten in English and comply with all other submission requirements stated in the NRA. All foreign proposals will undergo the same evaluation and selection process as those originating in the U.S. All proposals must be received before the established closing date. Those received after the closing date will be treated in accordance with paragraph (g) of this provision. Sponsoring foreign government agencies or funding institutions may, in exceptional situations, forward a proposal without endorsement if endorsement is not possible before the announced closing date. In such cases, the NASA sponsoring office should be advised when a decision on endorsement can be expected.

(3) Successful and unsuccessful foreign entities will be contacted directly by the NASA sponsoring office. Copies of these letters will be sent to the foreign sponsor. Should a foreign proposal or a U.S. proposal with foreign participation be selected, NASA's Office of External Relations will arrange with the foreign sponsor for the proposed participation on a no-exchange-of-funds basis, in which NASA and the non-U.S. sponsoring agency or funding institution will each bear the cost of discharging their respective responsibilities.

(4) Depending on the nature and extent of the proposed cooperation, these arrangements may entail:

(i) An exchange of letters between NASA and the foreign sponsor; or

(ii) A formal Agency-to-Agency Memorandum of Understanding (MOU).

(m) Cancellation of NRA. NASA reserves the right to make no awards under this NRA and to cancel this NRA. NASA assumes no liability for canceling the NRA or for anyone's failure to receive actual notice of cancellation.

APPENDIX B PROPOSAL COVER PAGE

(Date: _____)

Name of Submitting Institution: _____

Congressional District: _____

Certification of Compliance with Applicable Executive Orders and U.S. Code

By signing and submitting the proposal identified in this Cover Sheet / Proposal Summary, the Authorizing Official of the proposing institution, as identified above (or the individual proposer if there is no proposing institution):

1. Certifies that the statements made in this proposal are true and complete to the best of his/her knowledge;
2. Agrees to accept the obligations to comply with NASA award terms and conditions if an award is made as a result of this proposal;
3. Provides certification to the following that are reproduced in their entirety in this NRA:
   i. Certification Regarding Debarment, Suspension, and Other Responsibility matters;
   ii. Certification Regarding Lobbying, and
   iii. Certification of Compliance with the NASA Regulations Pursuant to Nondiscrimination in Federally Assisted Programs.

[1] … PI Information

Name:		**Email:**	
Organization:		**Department**	
Telephone:			
Address:		**Fax:**	
City, State, Zip:		**Country:**	

Signature and Date: _____

[2] … Team Member

Authorizing Official:	
Title:	
Institution:	

Signature and Date: _____

[3] … Proposal Title (Short and/or Full)

Short Title:	
Full Title:	

[4] … Science Areas (Designated Center of Excellence Area of Responsibility)

[5] … Themes (Strategic Enterprise)

(1)	Earth Science
(2)	Space Science
(3)	Aeronautics and Space Transportation Technology
(4)	Human Exploration and Development of Space
(5)	Biological and Physical Research

[6] … Summary (Proposal Abstract – 200-300 words)

[7] … BUDGET

Type	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Direct Labor						
Other Direct Costs						
- Subcontracts						
- Consultants						
- Equipment						
- Supplies						
- Travel						
- Other						
Indirect Costs						
Other Applicable Costs						
Subtotal – Estimated Costs:						
Less: Proposed Cost Sharing –						
Budget Total						

NASA PROCEDURE FOR HANDLING PROPOSALS

This proposal shall be used and disclosed for evaluation purposes only, and a copy of this Government notice shall be applied to any reproduction or abstract thereof. Any authorized restrictive notices that the submitter places on this proposal shall also be strictly complied with. Disclosure of this proposal for any reason outside the Government evaluation purposes shall be made only to the extent authorized by the Government.

GENERAL BUDGET INSTRUCTIONS

1. Direct Labor (salaries, wages, and fringe benefits): Attachments should list number and titles of personnel, amount of time to be devoted to the grant, and rates of pa.
2. Other Direct Costs:
   a. Subcontracts: Attachments should describe the work to be subcontracted, estimated amount, recipient (if known), and the reason for subcontracting.
   b. Consultants: Identify consultants to be used, why they are necessary, the time they will spend on the project, and rates of pay (not to exceed the equivalent of the daily rate for Level IV of the Executive Schedule, exclusive of expense and indirect costs).
   c. Equipment: List separately. Explain the need for items costing more than $5,000. Describe basis for estimated cost. General-purpose equipment is not allowable as a direct cost unless specifically approved by the grant officer. Any equipment purchase requested to be made as a direct charge under this grant must include the equipment description, how it will be used in the conduct of the basic research proposed and why it cannot be purchased with indirect funds.
   d. Supplies: Provide general categories of needed supplies, the method of acquisition, estimated cost.
   e. Travel: Describe the purpose of the proposed travel in relation to the grant and provide the basis of estimate, including information on destination and number of travelers where known.
   f. Other: Enter the total of direct costs not covered by 2a through 2e. Attach an itemized list explaining the need for each item and the basis for the estimate. Enter the student stipends (number of students x amount of stipend for each).
3. Indirect Costs: Identify indirect cost rate(s) and base(s) as approved by the cognizant Federal agency, including the effective period of the rate. Provide the name, address, and telephone number of the Federal agency and official having cognizance. If unapproved rates are used, explain why, and include the computational basis for the indirect expense pool and corresponding allocation base for each rate.
4. Other Applicable Costs: Enter total of other applicable costs with an itemized list explaining the need for each item and basis for the estimate.
5. Subtotal-Estimated Costs: Enter the sum of items 1 through 4.
6. Less Proposed Cost Sharing (if any): Enter any amount proposed. If cost sharing is based on specific cost items, identify each item and amount in an attachment.
7. Carryover Funds (if any): Enter the dollar amount of any funds that are expected to be available for carryover from the prior budget period. Identify how the funds will be used if they are not used to reduce the budget. NASA officials will decide whether to use all or part of the anticipated carryover to reduce the budget. Not applicable to 2nd-year and subsequent-year budgets submitted for the award of a multiple year grants.
8. Total Estimated Costs: Enter the total after subtracting items 6 and 7b from item 5.

APPENDIX C

(Electronic version of this form is not available online)

BUDGET PHASING PLAN (Year One)

Spending Forecast for URC Funds During Initial Award Period (Year One)		
YEAR	**MONTH**	**PLANNED UTILIZATION OF NASA AWARD $'S (000)**
2002	October	
	November	
	December	
	January	
	February	
2003	March	
	April	
	May	
	June	
	July	
	August	
	September	

APPENDIX D

CERTIFICATION OF INSTITUTION AND PRINCIPAL INVESTIGATOR ELIGIBILITY

Submit one copy of this form with the original proposal.
Do not include this form with any of the other copies, as this may compromise the confidentiality of the information.
Completion of this form is required.

I. Institutional Eligibility Certification

1. Institution Name _____

2. Proposal Title _____

3. Identify Highest degree offered (e.g., MS, or Ph.D.) by the institution in Mathematics, Science or Engineering

   Major_____Highest Degree_____

   Major_____Highest Degree_____

   Major_____Highest Degree_____

4. Check the Department of Education Minority Institution Designation.

   ____ Designated Historically Black College or University

II. Principal Investigator Eligibility Certification

1. Last Name First Name MI

2. Verification of Employment:

Employed by (institution):

School/Department (specify):

Check type of position

___ Tenured ___ Tenured-track ___ Full Time Contractual

Certification Authority
The person authorized to sign below certifies that the information provided is accurate.

Authorized Institutional Official (typed) _____

Title _____

Authorized Institutional Official Signature_____

For this NASA Research Announcement, the Authorized Institutional Official should be the University President.

APPENDIX E

CERTIFICATIONS, DISCLOSURES, AND ASSURANCES PURSUANT TO LOBBYING, DEBARMENT & SUSPENSION, NONDISCRIMINATION AND DRUG-FREE WORKPLACE

A. LOBBYING

As required by Section 1352, Title 31 of the US Code, and implemented at 14 CFR Part 1271, as defined at 14 CFR Subparts 1271.110 and 1260.117, with each submission that initiates Agency consideration of such applicant for award of a Federal contract, grant, or cooperative agreement exceeding $100,000, the applicant must certify that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit a Standard Form-LLL, Disclosure Form to Report Lobbying, in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

B. GOVERNMENTWIDE DEBARMENT AND SUSPENSION

As required by Executive Order 12549, and implemented at 14 CFR 1260.510, for prospective participants in primary covered transactions, as defined at 14 CFR Subparts 1265.510 and 1260.117

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

C. NONDISCRIMINATION IN FEDERALLY ASSISTED PROGRAMS

The institution, corporation, firm, or other organization on whose behalf this assurance is signed, hereinafter called Applicant, HEREBY AGREES THAT it will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352), Title IX of the Education Amendments of 1972 (20 U.S.C. 1680 et seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and the Age Discrimination Act of 1975 (42 U.S.C. 16101 et seq.), and all requirements imposed by or pursuant to the Regulation of the National Aeronautics and Space Administration (14 CFR Part 1250)(hereinafter called NASA) issued pursuant to these laws, to the end that in accordance with these laws and regulations, no person in the United States shall, on the basis of race, color, national origin, sex, handicapped condition, or age be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Applicant receives Federal financial assistance from NASA; and HEREBY GIVES ASSURANCE THAT it will immediately take any measure necessary to effectuate this agreement.

If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the Applicant by NASA, this assurance shall obligate the Applicant, or in the case of any transfer of such property, and transferee, for the period during which the real property or structure is used for a purpose for which the Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits. If any personal property is so provided, this assurance shall obligate the Applicant for the period during which it retains ownership or possession of the property. In all other cases, this assurance shall obligate the Applicant for the period during which the Federal financial assistance is extended to it by NASA.

THIS ASSURANCE is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property, discounts or other Federal financial assistance extended after the date hereof to the Applicant by NASA, including installment payments after such date on account of applications for Federal financial assistance which were approved before such date. The applicant recognizes and agrees that such Federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant, its successors, transferees, and assignees, and the person or persons whose signatures appear below are authorized to sign on behalf of the Applicant.

APPENDIX F

PROPOSAL DATA— PART A

Project Title: _____

Submitting Institution: _____

Principal Investigator: _____

Mailing Address, Telephone Number, Fax Number and E-mail Address of Principal Investigator: _____

_____

_____

_____

Relevant Enterprises (Check all that apply)
Indicate (a) NASA Center /JPL Center of Excellence Area of Responsibility or research program or other activities, and (b) Strategic Enterprise.

Center/Research Opportunity

☐ Ames Research Center
☐ Dryden Flight Research Center
☐ Glenn Research Center
☐ Goddard Space Flight Center
☐ Jet Propulsion Laboratory
☐ Johnson Space Center
☐ Kennedy Space Center
☐ Langley Research Center
☐ Marshall Space Flight Center
☐ Stennis Space Center

Strategic Enterprise

☐ Aerospace Technology
☐ Earth Science
☐ Space Science
☐ Biological and Physical Research
☐ Human Exploration and Development of Space

See NASA Center/JPL Center of Excellence Area of Responsibility from Appendix J.

PROPOSAL DATA – PART B

Co-Investigator(s)' Full Name(s) and Institution(s):

Other Proposed Collaborations:

Optional: NASA Personnel who have expressed specific interest in this proposal (Name and Center):

APPENDIX G

EQUIPMENT REQUEST FORM

ITEM (Descriptive name, probable brand, and model)	**QUANTITY**	**UNIT PRICE**	**TOTAL COST**	**JUSTIFICATION**

Total Equipment _____

Non-NASA Contribution _____

Cost to NASA _____

APPENDIX H

List Current and Pending Support from All Other Sources

This list should include all current research support from all other sources. It must include the proposed project and all other research requiring a part or portion of the time of the Principal Investigator and other senior personnel. The number of person-months must be stated regardless of the source of the support. Please provide this information in the following form:

I. Name of Principal Investigator

A. Current Support
B. Pending Proposals (including renewal applications)

List separately for (A) and (B):

(1) Source of Support
(2) Project Title and grant or contract number
(3) Award Amount
(4) Period Covered by Award
(5) Person-Months
(6) Location of work to be performed

II. Names of Co-Investigators
List (A) and (B) as shown above for each senior Co-Investigator.

APPENDIX I

CONTACT LIST FOR TECHNICAL AND SCIENTIFIC INQUIRIES

Additional information regarding the NASA Enterprises and NASA Centers can be obtained from the following Points-of-Contact.

NASA HEADQUARTERS POINTS-OF-CONTACT

Office of Aero Space Technology
Mr. Bill Anderson
Code RP
Tel: (202) 358-4732
Fax: (202) 358-3557
Email: wanderso@mail.hq.nasa.gov

Office of Biological and Physical Research
Ms. Debra Spears
Code UP
Tel: (202) 358-1952
Fax: (202) 358- 4168
Email: debra.spears@hq.nasa.gov

Office of Earth Science
Dr. Jack A. Kaye
Code YS
Tel: (202) 358-0757
Fax: (202) 358-2770
Email: jack.kaye@hq.nasa.gov

Office of Earth Science
Dr. Ming-Ying Wei
Code YO
Tel: (202) 358-0771
Fax:(202) 358-2771
Email: ming-ying.wei@hq.nasa.gov

Office of Human Resources and Education
Mr. Frank Owens
Code FE
Tel: (202) 358-1110
Fax: (202) 358-3048
Email: fowens@mail.hq.nasa.gov

Office of Space Flight
Ms. Alotta Taylor
Code MX
Tel: (202) 358-2534
Fax: (202) 358-2803
Email: alotta.taylor@hq.nasa.gov

Office of Space Science
Dr. Jeffrey Rosendhal
Code S
Tel: (202) 358-2470
Fax: (202) 358-3092
Email: jeffrey.rosendhal@hq.nasa.gov

NASA CENTER POINTS-OF-CONTACT

Ames Research Center
Ms. Adriana Cardenas
Tel: (650) 604-6510
Fax: (650) 604-2720
Email: acardenas@mail.arc.nasa.gov

Dryden Flight Research Center
Ms. Erma Cox
Tel: (805) 258-3033
Fax: (805) 258-2800
Email: erma_cox@mail.dfrc.nasa.gov

Johnson Space Center
Ms. Estella Gillette
Tel: (281) 483-0603
Fax: (281) 483-0609
Email: egillett@ems.jsc.nasa.gov

Langley Research Center
Ms. Vivian Merritt
Tel: (757) 864-3290
Fax: (757) 864-8832
Email: V.B.Merritt@larc.nasa.gov

Glenn Research Center
Mr. Robert Romero
Tel: (216) 433-5538
Fax: (216) 433-8000
Email: Robert.Romero@grc.nasa.gov

Goddard Space Flight Center
Mr. Dillard Menchan
Tel: (301) 286-7348
Fax: (301) 286-0298
Email: dmenchan@pop100.gsfc.nasa.gov

Kennedy Space Center
Mr. Kenny Aguilar
Tel: (321) 867-9175
Fax: (321) 867-1066
Email: Kenny.Aguilar-1@ksc.nasa.gov

Jet Propulsion Laboratory
Mr. Ozell Grissom
Tel: (818) 354-6605
Fax: (818) 354-6663
Email: Ozell.Grissom@jpl.nasa.gov

Marshall Space Flight Center
Mr. Charles Scales
Tel: (205) 544-4927
Fax: (205) 544-2411
Email: Charles.H.Scales@msfc.nasa.gov

NASA Headquarters
Ms. Pam Covington
Tel: (202) 358-0944
Fax: (202) 358-2742
Email: pcovingt@mail.hq.nasa.gov

Stennis Space Center
Ms. Jean Rhodes
Tel: (228) 688-2079
Fax: (228) 688-3240
Email: Jean.Rhodes@ssc.nasa.gov

APPENDIX J

WEB ADDRESSES of NASA CENTERS/ JPL

1. NASA Strategic Plan World Wide Web address: http://www.hq.nasa.gov/office/codez/new/
2. Minority University Research and Education Division World Wide Web address: http://mured.nasaprs.com
3. NASA Centers/JPL Center of Excellence and Mission Areas

Center	Designated Center of Excellence Area of Responsibility	Mission Area
Ames Research Center http://www.arc.nasa.gov/	Information Technology	Aviation Operations Systems and Astrobiology
Dryden Flight Research Center http://www.dfrc.nasa.gov	Atmospheric Flight Operations	Flight Research
Goddard Space Flight Center http://www.gsfc.nasa.gov/	Earth Science and Physics and Astronomy	Earth Science and Physics and Astronomy
Jet Propulsion Laboratory http://www.jpl.nasa.gov/	Deep Space Systems	Planetary Science and Exploration
Johnson Space Center http://www.jsc.nasa.gov/	Human Operations in Space	Human Exploration and Astro Materials
Kennedy Space Center http://www.ksc.nasa.gov/	Launch and Payload Processing Systems	Space Launch
Langley Research Center http://www.larc.nasa.gov/	Structures and Materials	Airframe Systems and Atmospheric Science
Glenn Research Center http://www.grc.nasa.gov/	Turbomachinery	Aeropropulsion
Marshall Space Flight Center http://www.msfc.nasa.gov/	Space Propulsion	Space Transportation Systems Development and Microgravity, and Space Optics Manufacturing Technology
Stennis Space Center http://www.ssc.nasa.gov/	Rocket Propulsion Test	Propulsion Test and Earth Science

APPENDIX K

GLOSSARY OF ACRONYMS AND DEFINITIONS

CO-I	Co-Investigator
FACS	Financial and Contractual Status Report
HBCU's	Historically Black Colleges and Universities
JPL	Jet Propulsion Laboratory
MI	Minority Institutions (refers collectively to HSI's, TCU's, and other minority serving institutions of higher education)
MSET	Mathematics, Science, Engineering and Technology
MURED	Minority University Research and Education Division
MUREP	Minority University Research and Education Programs
NRA	NASA Research Announcement
OEOP	Office of Equal Opportunity Programs
OMU's	Other Minority Universities (includes HSI's, TCU's, and other minority serving institutions of higher education)
PI	Principal Investigator
TCU's	Tribal Colleges and Universities

Black, not of Hispanic origin: A person having origins in any of the black racial groups of Africa.

American Indian or Alaskan Native: A person having origins in any of the original peoples of North America, and who maintains cultural identification through tribal affiliation or community recognition.

Hispanic: A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish Culture.

Pacific Islander: A person having origins in any of the original peoples of Hawaii; the US Pacific Territories of Guam, American Samoa, and the North American Marianas; the U.W. Trust Territory of Palau; the islands of Micronesia and Melanesia; and the Philippines.

White, not of Hispanic origin: A person having origins in any of the original peoples of Europe, North Africa, or the Middle East.

Targeted Disabled: A person having a physical or mental impairment that substantially limits one or more major life activities; who has a record of such impairment or who is regarded as having such impairment. (See the website at the Department of Education for legal definitions: http://www.ideapractices.org/regs/definitions.htm.

Underrepresented minority students: Refers to students from racial and ethnic groups whose enrollment in MSET education or participation in MSET professions are much smaller than that group's representation in the general population. African Americans, Hispanics, and Native Americans and Pacific Islanders currently fit this definition.